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10/762,135

01/20/2004

Frank J. Cosenza

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INTELLECTUAL PROPERTY
ALCOA TECHNICAL CENTER, BUILDING C
100 TECHNICAL DRIVE
ALCOA CENTER, PA 15069-0001

EXAMINER

ALI, MOHAMED HATEM

ART UNIT

PAPER NUMBER

3693

MAIL DATE

DELIVERY MODE

08/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/762,135

Applicant(s)

COSENZA ET AL.

Examiner

Mohamed H. Ali

Art Unit

3693

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on July 26, 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 5-8 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-8, and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgement

1. This office action is in response to Applicant's communication with remarks to the claims filed on **July 26, 2007**.

Claims 3-4 and 9-10 have been cancelled.

Amendments to the **claims 1, 2, 6, 8 and 12** are made in response.

As such **claims 1-2, 5-8 and 11-13** are pending in the application.

2. The following is a **final action on merits**. **Claims 1-2, 5-8, and 11-13** are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-2, 5-8, and 11-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Nakamura et al* (US 6,264,412 B1) in view of *Smith* (3,252,493).

As per claim 1, Nakamura et al teaches a spacer figured (bushing **13**) to be secured to a panel (Honeycomb panel **11**) of a predetermined thickness with a bore (through-hole **12**), comprising:

a first piece (first cylindrical member **14**) having a generally tubular body portion of a reselected first piece height, with a first end and a second end (as illustrated in Fig. **3**), the second end having a preselected included angle, (see bottom **14a** with angle) with respect to an axis (unmarked vertical dotted axis, see Fig. **1**) that passes through a bore of the first piece (**14**);

a second piece (second cylindrical member **15**) having a first end, an annular ridge (upper part of **15a**) which is located adjacent to the first end and a flange (flange **19**) which is located adjacent to the annular ridge (**15a**), the first end having a preselected second piece height, and the reselected included angle, (**15a** with angle) with respect to the axis and a seat (**15a**) which is adapted to receive a head of a fastener (fastener head **21**);

wherein the reselected included angle ranges from about 80 degrees to about 130 degree (a value of about 180 degrees [**14a** and **15a** with angles] inherently angle could be variable from about 80 degrees to about 180 degrees with machine tool cutter during boring/drilling of the cylindrical piece [**14**] inside end part (**14a**) to fix with standard bolt (angle head) available in the market and known to one of ordinary skill in the art of mechanical cutting/drilling/boring tool industry).

However, Nakamura et al fails to explicitly teach the second end of the first piece is sandwiched between the first end of the second piece and the annular ridge.

Smith in the same field of invention discloses the concept of having two spaced sheets including a second end (22) of a first piece (20) that is sandwiched between a first end (18) of a second piece (15) and an annular ridge (17).

From this teaching of Smith, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the panel fixing device of Nakamura to include the process of sandwiching the second end of the first piece between the first end of the second piece as taught by Smith in order to provide a sandwich type panel structure that can be installed with a minimum of panel preparation and with the simplest of tools.

As per claim 2, *Nakamura et al* discloses that the preselected second piece height is about 20% to about 40% of the first piece height (second piece has a height from about 20% to about 40% of the first piece [as illustrated in Fig. 2]).

As per claim 5, *Nakamura et al* discloses that the flange is secured to the panel (11) with an effective amount of an adhesive (adhesive 20).

As per claim 6, *Nakamura et al* discloses that the first end of the first piece (14) is secured to the panel by curling the first end of the first piece in to the panel (via engaging flange section 17).

As per claim 7, *Nakamura et al* discloses the flange has a preselected shape a circle (via flange 19).

Claim 8 is rejected for similar rational of claims **1 and 2** above.

Claims 11 – 13 are rejected for similar rational of claims **5 – 7** above.

As per claims 1 and 8, Applicant is reminded again that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

Response to Arguments

5. Applicant's arguments filed on July 26, 2007 have been fully considered but they are not persuasive.

Applicant argues, as in the following two paragraphs "neither Nakamura or Smith disclose or teach all of the elements of the currently pending claims. The claims have been amended to include that the reselected included angle ranges from about 80 degrees to about 130 degrees. The structure and shape of angle provided by the two pieces of the panel spacer provide a stronger attachment between the two-piece of the spacer to facilitate placement of the fastener".

"Neither the Nakumura or Smith references teach a panel spacer having an angle from about 80 degrees to about 130 degrees. The Nakumura reference relied on by the Examiner for the teaching of this particular angle only has an angle of about 180 degrees (see the figure of Nakumura). There is no teaching of any other angles with respect to the axis that passes through the bore of the first piece in this reference".

The Examiner respectfully disagrees. It is assumed and taken about 180 degrees **14a)** from the Fig.2 or Fig.3 at the bottom end surface related to the shape of the bolt head (**21** of Fig.2). The bottom end surface or shape could be flat or tapered with range from about 80 degrees to about 180 degrees (flat) related to the cutter/driller end and as required for any standard angled head bolts (cap screw or stud bolt, Fig.8 of smith) as available in the market or known to any one ordinary skill of the art (mechanical cutting tools users). It is inherent with the cutting tools to shape the end surface of the tubular boring and crystal clear to any ordinary skill of the art of the mechanical cutting tools users to make taper or flat (80 degrees – 180 degrees about) end boring/drilling (**14**). Moreover, angle change ranging from 80 degrees to 180 degrees will not affect much with the stronger attachment of two pieces.

Applicant's arguments having been found unpersuasive, the rejection has not been withdrawn.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hazelman (6,077,009) discloses Blind fattener with high strength blind and high clamp and High shear load resistance.

Worthing (4,817,264) discloses the axially collapsible fastener.

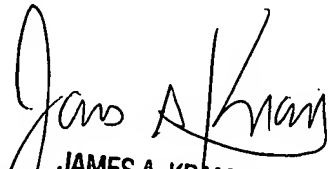
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed H. Ali whose telephone number is 571-270-3021. The examiner can normally be reached on 8.00 to 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on 571-272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mohamed H Ali
Examiner
Art Unit 3693

MA

 8-20-07
JAMES A. KRAMER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600